

**ART. IV.** *Case of an attempt at Suicide, in which the Internal Jugular Vein was partially divided and successfully secured by Ligature.*

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Ebenezer Hooper, aged 25 years, of melancholy temperament, a native of the State of New York, had been confined in the Auburn State Prison four years, on a life sentence for the crime of rape.

*Sunday morning*, December 31st, 1832, on unlocking the cell doors, for the purpose of taking the convicts to the chapel, Hooper was found by his keeper suspended by the neck with a rope taken from his hammock. He was immediately cut down and brought to the hospital whilst I was making my morning's visit:—his face pale, his pulse feeble and irregular. After remaining for half an hour, however, I considered it in all respects safe for him to be returned to his cell, under the full impression that he did not intend to destroy himself, but simply to lead his keeper into that belief, for the purpose of obtaining some indulgence from labour.

The *Monday morning* following, about 11 o'clock, after my usual visit, I was in great haste summoned to the hospital. On arriving there, I found H. lying upon a bed, exhibiting the most ghastly appearance; the bed on which he lay and the floor about it were literally deluged in blood; and there was an incision about five inches in length, commencing near the sterno-clavicular articulation of the right side, following close upon the superior border of the sternum and of the clavicle of the left side for about three inches, continuing in its extent upwards and outwards.

Having left the hospital earlier than usual after prescribing for the reported cases, I left Mr. Hamilton, a student, to see the prescriptions carried out; and whilst attending to that duty, Hooper was brought to the hospital in this perilous condition. Immediate resort was had to plugging the wound with folds of linen united with pressure, by which means the hæmorrhage was partially restrained until I reached the hospital. In removing the folds of cloth from the wound, a prodigious burst of blood followed, as if the carotid and jugular had both been severed. Pressure was immediately reapplied as well as possible over the bleeding surface, and in a manner that checked the flow of blood. The pulse, which was greatly reduced before from this tremendous gush of blood, sunk to a flutter, and the patient swooned. The nurse, an active and faithful convict, was immediately stationed at his head, and by the application of volatiles

to his nostrils and temples, he soon roused sufficiently to swallow some xv gtt. of aqua ammonia diluted in water. I again removed the pressure, but the blood poured out with such force, that before we could determine by sponging the wound, what vessel was injured, the patient swooned again; the pulse scarcely perceptible at the wrist; a death-like chill came over him, and for a few moments he seemed in *articulo mortis*. Volatiles were again resorted to, with external warmth and frictions, and whilst in this depressed state of the heart's action, I cautiously raised the folds of cloth from the scapular extremity of the wound, and readily secured the superior thyroid artery, which had been divided, by a ligature. I then removed the folds of cloth from the wound entirely, and, by sponging rapidly, discovered the internal jugular vein nearly severed. With a blunt aneurismal needle, I passed a ligature from within outwards, about three-eighths of an inch above the wound, protecting the nerve and artery with my fingers, and aiding the passage of the needle through the sheath by a gentle motion of the instrument opposed to the nail of the index finger of my left hand. The needle readily passed, and the vessel was secured.

The difficulty did not stop here; the first effort to cough, (and such efforts were almost incessant,) brought the blood in a full current through the lower portion of the vein, retrograding from the subclavian.

The ligature which had been applied to the vein, was now handed over to my assistant, whilst I attempted to secure the lower portion of the vessel; this was a point of some delicacy. The cut having been made close upon the superior edge of the sternum and the sternal extremity of the left clavicle, further dissection became indispensable.

The vein being put upon the stretch by the ligature; with a delicate knife having a convex edge, I commenced my incisions upon the scapular side of the sheath, (making the index finger of my left hand the director,) and, by the most guarded dissection, succeeded in detaching the vein from its connexions for about half an inch below the superior edge of the sterno-clavicular extremity of clavicle: I then passed a silver-eyed probe, armed and bent to suit the situation, down upon the outside of the sheath, close upon the vein, until the end of the probe appeared opposed to the superior portion of the sheath between the artery and vein; by then scratching with my finger nail over the extremity of the probe, it readily passed. After being fully satisfied that nothing was included but the vein, I tied the ligature, and all hæmorrhage ceased at once.

In now examining the wound more particularly, I found the internal jugular vein divided in about three-fifths of its circumference, the

external jugular and the superior thyroid artery completely divided; the sterno-cleido mastoid muscle completely, and the sterno-thyroid partially severed. The razor, in passing from right to left, laid the sheath bare, but did not sink sufficiently deep in its course to injure the coats of the artery, and yet left the free opening in the vein.

I now sponged the wound with warm water, and directed the patient to cough, but finding no return of hæmorrhage, (after waiting for a short time,) I proceeded to dress the wound.

The cut edges of the wounded muscles were now brought accurately in apposition, and the lips of the wound united by suture and adhesive straps, dry lint placed over the surface of the wound and a thin compress secured by a few turns of a common roller around the neck.

I then took a double headed roller, carrying it horizontally around the head by two or three turns, and then under the axilla of each arm, making several turns over the head, and under the arms, in a manner to fix the head with an inclination towards the wound. The patient was next placed upon a mattress, with his head and shoulders raised by pillows, and maintained steadily in that position. After being placed in bed, he complained of chilliness; his pulse was feeble, and great exhaustion was evinced. Warm flannels were directed to be wrapped around his extremities, a cordial draught was administered, and a little soup ordered to be given through the day, with strict directions for maintaining quietness.

The amount of blood lost was very considerable, though it was impossible to determine with any thing like accuracy, its quantity.

*January 1st.* 7 o'clock, P. M. Has taken soup several times during the day, without much difficulty in swallowing; the pulse about 90 per minute, and feeble. Ordered pulv. Dov. grs. iv. every four hours. Soup continued in moderate quantities.

2nd. 10 o'clock, A. M. The pulse slightly increased in frequency and rather tense; skin cool; slight cough; had obtained some disturbed sleep during the night; he complained of increased difficulty in swallowing; directed sulphate magnesia  $\bar{5}$ vj. pulv. Dov. grs. iv. M.; chicken water. 8 o'clock, P. M., bowels had been gently moved, the pulse diminished in tensiety, and somewhat in frequency; pulv. Dov. grs. v. at intervals of 6 hours; lemonade as drink.

3d. 10 o'clock, A. M., had obtained but little sleep during the night; pulse increased in frequency to 100 per minute, and tense; tongue coated and pain in left side of neck and head; ordered V. S.  $\bar{3}$ vj. and barley water acidulated with lemon juice. 7 o'clock, P. M., pulse soft and reduced in frequency; swallowed with more ease; directed morphine  $\frac{1}{4}$  gr. once in 6 hours.

4th. 10 o'clock, A. M. Considerable fœtor emitted from the wound; pulse 85 per minute, small. The roller and compress were removed from the neck and yest poultice applied over the wound; not the slightest approach to union by the first intention; chicken soup; quinine grs. j., sulp. morph. grs.  $\frac{1}{4}$ , combined, and given at the interval of six hours.

5th. 10 o'clock, A. M. Slept tolerably well through the night; fœtor diminished; yest poultice continued; do. morphine and quinine; soup.

6th. 11 o'clock, A. M. In removing the poultice this morning, the ligature came away from the superior thyroid artery; pulse free and soft; the discharge from the wound appeared more healthy; continued.

7th. 11 o'clock, A. M. The ligature embracing the vein above the wound, came away with the dressings which were removed, entire; pulse rather irritable, and discharge varies; bowels free; not the slightest appearance of union in any part of wound. Adhesive straps were reapplied; sulphate quinine grs. ij. morphine gr.  $\frac{1}{4}$ , at 8 hours; chicken or mutton soup for diet.

8th. 10 o'clock, A. M. No sensible change; treatment continued, with the addition of port wine and water.

9th. 10 o'clock, A. M. Ligature came away from the lower portion of vein this morning; continued.

10th, 10 o'clock, A. M. Adhesive straps removed; the edges of wound flabby, tense, and insensible. They were pared off with scalpel, and the wound reunited by sutures and adhesive straps; quinine and port wine continued, with animal food; poultice discontinued.

11th. 10 o'clock, A. M. Continued.

12th and 13th. Symptoms favourable; continued.

14th. The dressings were removed, and union was found nearly complete. From this time the adhesive straps were changed daily until the 19th, when the wound was found entirely healed; the straps were continued for a few days to give support to the recent adhesions.

20th. He was returned to his former employment, (tailoring,) under directions for moderate labour for a few days, after which he was placed at full labour, perfectly restored, with the slight exception, that, when his head was thrown backwards, he had, for a time, difficulty in suddenly bringing it forwards; from this he soon recovered, with as entire power in the movement of the head and neck as before the injury.

The danger arising from tying large veins is universally admitted

to be much greater than tying arteries of corresponding magnitude. Although the danger may not be so great where the individual possesses good general health, as some of the English surgeons are disposed to believe, yet it must be conceded that serious consequences arise from wounds on the application of the ligature to veins in a manner that rarely or never occurs to arteries.

The cases recorded where the internal jugular vein has been successfully tied under any circumstance, are few in number. I know of but two instances in which this operation has been successfully performed in this country besides the case under consideration.

One of these was performed by Dr. Stevens of New York, in 1830; the other by Dr. Gibson of Philadelphia, in Nov. 1832. In the last case, the ligature was applied in consequence of the vein being involved in a tumour "occupying the whole of the left side of the neck," in the removal of which it became necessary to detach the vein, or secure it with a ligature. The details of this case, which is highly interesting in several particulars, may be found in the *American Journal of Medical Sciences*, Vol. xiii. No. 26, p. 305.

*Auburn, N. Y., May, 1836.*

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ART. V. *On a new method of relieving persons affected with Prolapsus Uteri.* By SAMUEL ANNAN, M. D., of Baltimore.

The uterus, although supported by its ligaments and the surrounding structures frequently sinks down into the vagina, below its natural and ordinary position; and in proportion to its descent, is the cause of painful symptoms. Three degrees of this sinking have been described. The first or slightest form has been termed simply descent or relaxation; the second, in which the lower part of the uterus approaches the os externum, is called *procedentia*; and to the third, when this organ protrudes beyond the vulva, the term *prolapsus* has been applied. It has been said, "that these distinctions are not entirely useless in practice; for, though they are only different degrees of the same affection, they yet require a little difference in the mode of treatment." This may be true of the old plan. The method to be proposed is applicable to all, with this advantage, that the worse the condition of the patient, the more effectual is it in affording relief.